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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,968

10/28/2003

Brig Barnum Elliott

BBNT-P01-249

4420

28120

7590

05/14/2008

ROPES & GRAY LLP

PATENT DOCKETING 39/41

ONE INTERNATIONAL PLACE

BOSTON, MA 02110-2624

EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

05/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/694,968	Applicant(s) ELLIOTT, BRIG BARNUM	
	Examiner PHUC H. TRAN	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/28/03;1/16/07;6/18/07;11/13/07;12/31/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 35, 40, and 45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 35, 40 and 45 recite a computer readable medium which is defined as a carrier wave (specification paragraph 65), respectively. These claims appear to be signal claims that are nonstatutory (MPEP 2106.1)

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-34, 36-39, 41-44, and 46-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Rahmema (U.S. Patent No. 5430729).

- With respect to claims 1, 8, 14, 19-21, 23, 27-28, 30, 36, 41, and 47, Rahmema teaches a communications network (e.g. Fig. 1) comprising: at least one control station configured to (e.g. SCS 28 in fig. 1): generate batches of forwarding tables (e.g. Fig. 5), each batch of forwarding tables including a primary forwarding table and a plurality of

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backup forwarding tables, and forward the batches of forwarding tables (e.g. exit links choices shows in Fig. 5); and

a plurality of network nodes, each network node being associated with one or more outbound and inbound links and configured to (e.g. the satellites 12 in Fig. 1):

receive a batch of forwarding tables from the at least one control station, install the primary forwarding table from the batch as a current forwarding table (e.g. the Fig. 3 shows the memory 86),

detect that a quality of one of an associated outbound and inbound link has changed (see col. 20, lines 30-32),

generate a message instructing other nodes of the plurality of network nodes to switch to a backup forwarding table in response to detecting the quality change, and transmit the message to the other nodes (see col. 20, lines 33-38).

- With respect to claims 2-3, Rahmema discloses wherein the message identifies the backup forwarding table (see col. 20, lines 33-38).

- With respect to claim 4, Rahmema teaches wherein each of the plurality of network nodes is further configured to transmit the message to the at least one control station (e.g. Fig. 1 shows communication between satellites and SCS).

- With respect to claims 5, 12, 15, and 34, Rahmema discloses wherein the plurality of network nodes includes at least one satellite (e.g. blocks 12 in Fig. 1).

- With respect to claim 6, Rahmema discloses wherein the at least one control station includes a terrestrial control station (e.g. block 24 in Fig. 1).

- With respect to claim 7, Rahmema discloses wherein the at least on control station includes a space-based control station (e.g. block SCS 28 in Fig. 1).

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- With respect to claim 9-11, 17-18, 25-26, 31-33, and 38-39, Rahmema teaches wherein the plurality of backup forwarding tables of each batch of forwarding tables allows the corresponding node to handle a subset of all single events that can occur in the communications network (e.g. fig. 7 shows each corresponding node handle events).

- With respect to claim 13, Rahmema teaches wherein the batch of forwarding tables includes forwarding tables for at least one of Internet Protocol, Asynchronous Transfer Mode, Multi- Protocol Label Switching, fast packet switching, and Ethernet (see col. 2, lines 10-12).

- With respect to claim 16, Rahmema teaches wherein the second plurality of backup forwarding tables allows the node to continue routing data in the communications network when any of a subset of possible events occurs in the communications network (e.g. Fig. 9 shows at blocks 210 and 212).

- With respect to claims 22, 29, and 44, Rahmema discloses wherein the processor is further configured to: piggy-back the received message in a transmission to at least one other node in the communications network (e.g. block 62 in fig. 4).

- With respect to claim 24, Rahmema teaches wherein the plurality of backup forwarding tables allows the node to continue routing data in the communications network when any of a subset of possible events occurs in the communications network (e.g. Fig. 9 shows the table allows the node to select between links).

- With respect to claims 37 and 42-43, Rahmema teaches wherein the at least one event includes one of a failure and a degradation of a link in the communications network (see col. 3, lines 1-10).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571)272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUC H TRAN/
Examiner, Art Unit 2616